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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/624,705

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Mark Ronald Plesko

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EXAMINER

PHAM, CHRYSTINE

ART UNIT

PAPER NUMBER

2192

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/624,705

Applicant(s)

PLESKO ET AL.

Examiner

Chrystine Pham

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 07/01/06 ; 05/05/06 ; 10/24/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This action is responsive to application 10/624705 filed on July 21, 2003. Claims 1-39 are presented for examination.

#### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 3-19, 20-28, 36-39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

#### Claim 1

Merely cited as "a method for representing type information via objects of classes ...", it is limited to computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and **functional interrelationships between the computer program and other claimed elements of a computer** which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility Annex IV(a)

(<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>)

#### Claims 3-19

These claims are also rejected for failing to remedy the deficiency identified in base claim 1.

#### Claim 20

Merely cited as "computer-readable medium having a software program thereon, the program comprising ... program code ...", it is limited to **non-functional descriptive material**, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility Annex IV(a) (<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>).

#### Claims 21-28

These claims are also rejected for failing to remedy the deficiency identified in base claim 20.

Claim 36

Merely cited as "computer-readable medium having a software program thereon, the program comprising ... program code ...", it is limited to **non-functional descriptive material**, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility Annex IV(a) (<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>).

Claims 37-39

These claims are also rejected for failing to remedy the deficiency identified in base claim 36.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2192

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Motoyama et al. (US 6578090 B1, "Motoyama").

#### Claim 1

Motoyama teaches a method of representing type information via objects of classes in a class hierarchy, wherein the class hierarchy comprises at least one class and a plurality of sub-classes for representing different type classifications (see at least col.3:1-55), the method comprising: instantiating one or more objects of one or more of the sub-classes of the hierarchy, wherein the one or more sub-classes represent classifications of types (see at least FIG.2A & associated text; 62, 64 FIG.4 & associated text); and storing information in the one or more objects (see at least 120, 112 FIG.6 & associated text).

#### Claim 2

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein the one or more objects represent type information of a variable in software during compilation of the software (see at least col.2:30-60).

#### Claim 3

Art Unit: 2192

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein at least one of the objects comprises information for a size of a type represented by the object (see at least col.3:1-10).

#### Claim 4

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein at least one of the one or more sub-classes inherits from an abstract type that wraps an externally defined type, the abstract type providing a mapping from a typed intermediate language to original source code (see at least col.3:10-28; 6 FIG.2A).

#### Claim 5

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein at least one of the one or more sub-classes represents container types (see at least FIG.10 & associated text; col.2:5-18; col.3:1-28).

#### Claim 6

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein at least one of the one or more sub-classes represents pointer types (see at least 54, 55 FIG.2B & associated text).

#### Claim 7

Art Unit: 2192

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein at least one of the one or more sub-classes represents function types (see at least FIG.2A & associated text; col.10:20-37).

#### Claim 8

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein at least one of the one or more sub-classes represents unmanaged array types (see at least col.1:53-67; col.24:53-col.25:5; col.10:38-48).

#### Claim 9

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein at least one of the one or more sub-classes represents class types (see at least col.1:53-67; col.24:53-col.25:5; col.10:38-48).

#### Claim 10

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein at least one of the one or more sub-classes represents managed array types (see at least col.1:53-67; col.24:53-col.25:5; col.10:38-48).

#### Claim 11

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein at least one of the one or more sub-classes represents struct types (see at least FIG.2A &



associated text; col.10:20-37).

#### Claim 12

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein at least one of the one or more sub-classes represents interface types (see at least col.1:53-67; col.24:53-col.25:5; col.10:38-48).

#### Claim 13

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein at least one of the one or more sub-classes represents enumerated types (see at least col.1:53-67; col.24:53-col.25:5; col.10:38-48).

#### Claim 14

The rejection of base claim 1 is incorporated. Motoyama further teaches wherein at least one of the one or more sub-classes represents primitive types (see at least col.1:53-67; col.24:53-col.25:5; col.10:38-48).

#### Claim 15

The rejection of base claim 14 is incorporated. Motoyama further teaches wherein at least one of the sub-classes representing primitive types represents the following types: int, float, and void (see at least col.1:53-67; col.24:53-col.25:5; col.10:38-48).

Claim 16

The rejection of base claim 14 is incorporated. Motoyama further teaches wherein at least one of the sub-classes representing primitive types can represent an unknown type (see at least col.1:53-67; col.24:53-col.25:5; col.10:38-48).

Claim 17

The rejection of base claim 14 is incorporated. Motoyama further teaches wherein at least one of the sub-classes representing primitive types is extensible to represent one or more additional primitive types (see at least col.1:53-67; col.24:53-col.25:5; col.10:38-48).

Claims 18-39

Claims recite limitations, which have been addressed in claims 1-17, therefore, are rejected for the same reasons as cited in claims 1-17.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chrystine Pham whose telephone number is 571-272-3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CP  
October 11, 2006



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SUPERVISORY PATENT EXAMINER